

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RAINER SOMMER

Appeal 2007-1344
Application 10/045,789
Technology Center 3600

Decided: June 7, 2007

Before JENNIFER D. BAHR, LINDA E. HORNER, and DAVID B. WALKER,
Administrative Patent Judges.

WALKER, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Rainer Sommer (“Appellant”) seeks our review under 35 U.S.C. § 134 of the Examiner’s final rejection of claims 1-12. We have jurisdiction under 35 U.S.C. § 6(b). We reverse.

THE INVENTION

Appellant claims a vehicle controller and a control method with which control parameters of a vehicle version can be determined either (1) indirectly from algorithmic processing of a version coding during operation of the controller; or (2) directly from specification of the parameters in the code word according to version coding (Specification 2:1-20). Claims 1-2, reproduced below, are representative of the subject matter on appeal.

1. A vehicle controller designed for a plurality of different vehicle versions, comprising:
 - means for storing a plurality of control parameters for the different vehicle versions;
 - means for storing a version coding for customizing the vehicle controller for a predetermined vehicle version, the version coding having a plurality of bit positions; and
 - means for indirect selection of control parameters from the means for storing control parameters by algorithmic processing of values of a plurality of bit positions of the version coding.
2. The vehicle controller according to claim 1, further comprising
 - means for direct selection of control parameters from the means for storing control parameters as a function of values of individual bit positions of the version coding.

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THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Gormley	US 5,513,107	Apr. 30, 1996
Becker	US 6,184,661 B1	Feb. 6, 2001
Volkswagen Official Factory Repair Manual, Golf, GTI, Jetta 1999-2003, Jetta Wagon, 2001-2003; Bentley Publishers; pp. 1-6 through 1-64 (“Manual”).		

The following rejections are before us for review.

1. Claims 1-12 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement.
2. Claims 1-5 and 7-11 are rejected under 35 U.S.C. § 103(a) as unpatentable over the Manual in view of Gormley.
3. Claims 6 and 12 are rejected under 35 U.S.C. § 103(a) as unpatentable over the Manual in view of Gormley, and further in view of Becker.

ISSUE

The issues before us are whether Appellant has shown that the Examiner erred in rejecting (1) claims 1-12 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement; (2) claims 1-5 and 7-11 under 35 U.S.C. § 103(a) as unpatentable over the Manual in view of Gormley; and (3) claims 6 and 12 under 35 U.S.C. § 103(a) as unpatentable over the Manual in view of Gormley, and further in view of Becker. The enablement issue turns on whether the Specification provides adequate disclosure of indirect selection of control parameters and direct selection of control parameters to allow one skilled in the art to practice claims 1-12 without undue experimentation. The correctness of the

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obviousness rejections turns on whether the asserted references disclose indirect selection of control parameters by algorithmic processing of values of a plurality of bit positions of the version coding.

Rather than repeat the arguments of Appellants or the Examiner, we make reference to the Briefs and the Answer for their respective details. Only those arguments actually made by Appellants have been considered in this decision. Arguments which Appellant could have made but chose not to make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R.

§ 41.37(c)(1)(vii) (2004). Except as noted in this opinion, Appellant has not presented any substantive arguments directed separately to the patentability of the dependent claims or related claims in each group. In the absence of a separate argument with respect to those claims, they stand or fall with the representative independent claim. *See In re Young*, 927 F.2d 588, 590, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991). *See also* 37 C.F.R. § 41.37(c)(1)(vii).

FINDINGS OF FACT

We find the following enumerated findings to be supported by at least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427, 7 USPQ2d 1152, 1156 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

1. The Specification teaches that control parameters of a vehicle version can be determined indirectly by algorithmic processing of the version coding

during operation in a controller without specifying the parameter directly through a separate bit in the code word according to the version coding (Specification 2:1-9). The vehicle version is coded into version coding (code word memory 10) that is algorithmically processed during operation to determine where in the code word (application data memory 30) to read the desired control parameters (Specification 3:8-14 and 22-25).

2. The Specification teaches that control parameters of a vehicle version can be determined directly from the code word when the control parameters are contained directly in the code word according to version coding. (Specification 2:11-14; Figure 2).
3. The processes of direct and indirect selection of control parameters are disclosed in the Specification as follows:

Depending on the content of code word memory 10, data according to the respective version is read out of application data memory 30 in operation of the vehicle controller. Individual values of application data memory 30 may be allocated directly to individual items of information in version code memory 10 or they may be allocated indirectly, i.e., individual values are assigned to certain combinations of information of code word memory 10. These combinations are determined by logic links of individual bit positions of version code memory 10. The links are formed in unit 20. According to the algorithmic processing in unit 20, selector unit 40 is then controlled to access the respective memory locations in application data memory 30. The value read there is sent

to control unit 50. In control unit 50, the proper control program for the vehicle control is executed. Many parameters or engine characteristics maps can be determined from the version coding in the manner described here.

(Specification 3:8-20).

4. Vehicle version coding contains information regarding the vehicle version, i.e., information regarding the vehicle allocated to the controller. “The information may include the presence, type and nature of individual vehicle components, such as body type, engine type, transmission type, carburetor type, etc. Code word memory 10 may be implemented as an EEPROM.” (Specification 2:30-3:4). The version code memory 10 is version specific and the totality of possible values and engine characteristics maps is present in each controller (in application data memory 30) so one controller may be used for a plurality of different vehicle versions (Specification 3:22-25).
5. Control parameters are described as data or engine characteristics maps for the individual elements of the vehicle equipment that are contained in application data memory 30. (Specification 3:4-6).
6. The Manual discloses only direct selection. The table on 1-32 of the Manual shows version codes such as number of engine cylinders, but does not teach algorithmically processing the plurality of bit positions in the version coding to select a control parameter (Manual, 1-29-1-32).
7. Gormley teaches storing a variety of preferences for a plurality of operators and configuring the operating characteristics of the vehicle in

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response to the identified operator and his or her desires and requirements. (Gormley, col. 4, ll. 37-48).

8. Becker discloses an alternator regulator, but does not teach the missing limitation (Becker *passim*).
9. None of the cited references disclose the limitation of selection of control parameters by algorithmic processing of values of a plurality of bit positions of the version coding.

DISCUSSION
ENABLEMENT

The PTO bears the initial burden when rejecting claims for lack of enablement.

When rejecting a claim under the enablement requirement of section 112, the PTO bears an initial burden of setting forth a reasonable explanation as to why it believes that the scope of protection provided by that claim is not adequately enabled by the description of the invention provided in the specification of the application; this includes, of course, providing sufficient reasons for doubting any assertions in the specification as to the scope of enablement. If the PTO meets this burden, the burden then shifts to the applicant to provide suitable proofs indicating that the specification is indeed enabling.

In re Wright, 999 F.2d 1557, 1561-62, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993) (citing *In re Marzocchi*, 439 F.2d 220, 223-24, 169 USPQ 367, 369-70 (CCPA

1971)).

It is well-established law that the test for compliance with the enablement requirement in the first paragraph of 35 U.S.C. § 112 is whether the disclosure, as filed, is sufficiently complete to enable one of ordinary skill in the art to make and use the claimed invention without undue experimentation. *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988). “Enablement is not precluded by the necessity for some experimentation . . . However, experimentation needed to practice the invention must not be undue experimentation. The key word is ‘undue,’ not ‘experimentation.’” *In re Wands*, 858 F.2d at 736-737, 8 USPQ2d at 1404.

To evaluate whether a disclosure would require undue experimentation, the Federal Circuit has adopted the following factors to be considered:

- (1) The quantity of experimentation needed to make or use the invention based on the content of the disclosure;
- (2) The amount of direction or guidance presented;
- (3) The existence of working examples;
- (4) The nature of the invention;
- (5) The state of the prior art;
- (6) The relative skill of those in the art;
- (7) The level of predictability in the art; and
- (8) The breadth of the claims.

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In re Wands, 858 F.2d at 737, 8 USPQ2d at 1404. The examiner's analysis must consider all the evidence related to each of these factors, and any conclusion of nonenablement must be based on the evidence as a whole. *Id.*, 8 USPQ2d at 1404.

The Examiner asserts that the Specification does not make clear the difference between "direct selection of control parameters" and "indirect selection of control parameters" (Answer 3). Contrary to this assertion, the Specification alternately describes the processes of direct and indirect selection of control parameters. In particular, for the embodiment disclosed in Figure 1, indirect selection is described as determining control parameters indirectly by algorithmic processing of the version coding during operation in a controller without specifying the parameter directly through a separate bit in the code word according to the version coding (Finding of Fact 1). For indirect selection, control parameters stored in the application data memory are allocated indirectly, i.e., individual values are assigned to certain combinations of information of code word memory (Finding of Fact 3).

In addition, two embodiments of direct selection are disclosed. In the first, individual values of application data memory may be allocated directly to individual items of information in version code memory, such that no algorithmic processing of the version code memory is necessary to select the appropriate control parameter from the application data memory (Finding of Fact 3). In the second, the control parameters are coded directly into the code word and read directly from the code word (Finding of Fact 2). Since the control parameters are directly coded into the code word, no application data memory is required and the

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control parameters may be selected directly from the code word without algorithmic processing.

The Examiner has not set forth a reasonable explanation as to why he believes that the scope of protection provided by claims 1-12 is not adequately enabled by the description of the invention provided in the Specification. He thus failed to meet his burden of setting forth a reasonable explanation of non-enablement. Accordingly, we reverse the enablement rejection of claims 1-12.

OBVIOUSNESS

In rejecting claims under 35 U.S.C. § 103(a), the examiner bears the initial burden of establishing a *prima facie* case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). *See also In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). Only if this initial burden is met does the burden of coming forward with evidence or argument shift to the appellant. *Id.* at 1445, 24 USPQ2d at 1444. *See also Piasecki*, 745 F.2d at 1472, 223 USPQ at 788. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. *See Oetiker*, 977 F.2d at 1445, 24 USPQ2d at 1444; *Piasecki*, 745 F.2d at 1472, 223 USPQ at 788.

It is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006) (“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of

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obviousness") (*cited with approval in KSR Int'l. Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007)). In so doing, the examiner is expected to make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966). *KSR*, 127 S. Ct. at 1734, 82 USPQ2d at 1391 ("While the sequence of these questions might be reordered in any particular case, the [Graham] factors continue to define the inquiry that controls."). The necessary determinations include: (1) the scope and content of the prior art; (2) the differences between the prior art and the claims at issue; and (3) the level of ordinary skill in the art. *Id.* "Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." *Id.* (quoting *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966)) (internal quotations omitted).

A. Rejection of claims 1-5 and 7-11 under 35 U.S.C. § 103(a) as unpatentable over the Manual in view of Gormley.

Appellant argues the patentability of claims 1-5 and 7-11 on the basis that the Manual does not disclose indirect selection of control parameters by algorithmic processing of values of a plurality of bit positions of the version coding.

Contrary to the Examiner's assertions, the Manual discloses only direct selection. The table on 1-32 of the Manual shows version codes such as number of

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engine cylinders, but does not teach algorithmically processing the plurality of bit positions in the version coding to select a control parameter (Finding of Fact 6). The Examiner misreads Gormley, which he relies on to provide the missing limitation. Gormley teaches storing a variety of preferences for a plurality of operators and configuring the operating characteristics of the vehicle in response to the identified operator and his or her desires and requirements. (Finding of Fact 7). This addresses adjustment of the performance of a single vehicle version to suit multiple operators. It does not disclose indirect selection of a control parameter by algorithmic processing of values of a plurality of bit positions of the version coding. Because the combination of references lacks the limitation of selection of control parameters by algorithmic processing of values of a plurality of bit positions of the version coding which is present in all of the claims, and because the Examiner provides no explanation why such a limitation would have been obvious to one of ordinary skill in the art, the Examiner has failed to establish a *prima facie* case of obviousness. We therefore reverse the obviousness rejection of claims 1-5 and 7-11.

B. Rejection of claims 6 and 12 under 35 U.S.C. § 103(a) as unpatentable over the Manual in view of Gormley, and further in view of Becker.

Claims 6 and 12 depend ultimately from claims 1 and 7, respectively, and contain each of their respective limitations. As discussed above the combination of the Manual with Gormley fails to disclose selection of control parameters by algorithmic processing of values of a plurality of bit positions of the version coding

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which is present in both claims 6 and 12. Becker discloses an alternator regulator, but does not teach the missing limitation (Finding of Fact 8). The rejection of claims 6 and 12 thus is improper because none of the cited references teach the limitation of selection of control parameters by algorithmic processing of values of a plurality of bit positions of the version coding, and the Examiner provides no explanation why such a limitation would have been obvious to one of ordinary skill in the art. Accordingly, we reverse the obviousness rejection of claims 6 and 12.

CONCLUSIONS

We conclude that Appellant has shown that the Examiner erred in rejecting claim 1-12.

DECISION

The decision of the Examiner to reject claims 1-12 is reversed.

REVERSED

JRG

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